

INVASIVE SPECIES CONTROL PROJECTS (R1 SMALL GRANTS) FY 2013 FINAL REPORT

Project Title: Snively Basin Rye Field Rehabilitation

Station: Hanford Reach National Monument, Mid-Columbia River NWR Complex

Contact Person: Kevin Goldie

Project Description: The Snively Basin area of the Arid Lands Ecology Reserve within the Hanford Reach National Monument was historically used to farm cereal rye, among other dryland grains. The rye had seeded itself out and maintained a near monoculture since 1944. Repeated catastrophic wildfires in 2000 and 2007 had sufficiently destabilized the surrounding habitats that the rye had been able to escape and expand into these native habitats. As part of a larger response plan the Service had begun efforts to eradicate the cereal rye from Snively Basin and to establish native grassland and competitive shrub steppe components. An R1 ISCP Small Grant received in 2012 also continued these efforts. The project as described for the FY 2013 grant was to continue the control treatments of cereal rye, as well as of selected invasive broadleaves, to continue and protect these past efforts.

Invasive Species Targeted: Cereal rye (*Secale cereale*; a Class C noxious weed in WA), Diffuse knapweed (*Centaurea diffusa*; a Class B noxious weed in WA), Rush skeletonweed (*Chondrilla juncea*; a Class B noxious weed in WA)

Project Completion Date or Estimated Completion Date: approximately July 19, 2013

Project Results: The cereal rye infestations were treated with a 33% solution of glyphosate (primarily Ranger PRO®), using a tractor-mounted boom wipe system in the main fields and an ATV-mounted wipe system in the smaller and steeper peripheral infestations. Abnormal late season moisture led to a significant flush of diffuse knapweed and a moderate flush of rush skeletonweed within the Snively Basin access roads. These were treated in July with 6 fl oz/acre of aminopyralid (Milestone®) and a non-ionic surfactant, using a truck-mounted boomless spray system. The wipe treatments of the cereal rye were highly effective. Significant native grass and forb growth is evident through much of the fields. Rye is still persisting in the peripheral infestations (initial treatments on these were begun two years after the main fields, so this is to be expected), but remarkably little is present in the main fields. The efficacy of the Milestone cannot be judged until 2014. However, based on observations of similar treatments in the past in other project areas, aminopyralid is highly effective at controlling knapweeds and rush skeletonweed (approaching 100% in most cases) so there is every reason to believe this treatment will be successful.

Bulbous bluegrass was discovered in one area of the south field. There was no discernable pattern within the infestation (i.e., it does not appear to have come in as a contaminant of the drill seeding or any of the other treatments). It is believed this invader was present but undetected prior to initiation of cereal rye eradication efforts, and that these efforts in turn released the bulbous bluegrass. There is a significant native grass and forb presence within this infestation; it

is unknown if this will be enough to outcompete the bulbous bluegrass, or if they may become co-dominant. Cheatgrass is also showing significant presence and dominance in select areas, typically corresponding to the higher elk usage areas. Natives are not as present in these infested areas, but are still present. We are exploring options for future efforts in this area if it should become necessary. We are also casually promoting the area as a test site for one of the cheatgrass biocontrols being developed and tested elsewhere on the Monument.

Number of Acres Treated: approximately 536 acres

Number of Acres Inventoried and/or Mapped: n/a

Number of Acres Restored: unknown; approximately 350 acres showed improvement over last year but independent “function” has not been determined

Total Grant Amount: \$8,350

Breakdown of Expenditures: (totals approximate)

Category	Total \$ Spent	% of Total Grant
Equipment/Supplies	\$220	2.6%
Chemical	\$2,820	33.8%
Biocontrol Agents	---	---
Travel (includes fuel, mob/demob costs)	\$2,250	27%
Biotech/Contractor/Salary	\$3,060	36.6%
Restoration Materials	---	---
Other (Describe)	---	---
TOTAL	\$8,350	100%